



Airworthiness Directive

AD No.: 2017-0047

Issued: 13 March 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:

AIRBUS HELICOPTERS DEUTSCHLAND GmbH

Type/Model designation(s):

MBB-BK117 helicopters

Effective Date: 27 March 2017

TCDS Number(s): EASA.R.010

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2015-0210R2, dated 02 December 2016.

ATA 29 – Hydraulic Power – Module Plate Assembly – Inspection / Modification

Manufacturer(s):

Airbus Helicopters Deutschland GmbH (formerly Eurocopter Deutschland GmbH), Airbus Helicopters Inc. (formerly American Eurocopter LLC)

Applicability:

MBB-BK117 C-2, MBB-BK117 C-2e, MBB-BK117 D-2 and MBB-BK117 D-2m helicopters, all serial numbers (s/n).

Reason:

The hydraulic module plate assembly of certain models of MBB-BK117 has four attachment points at the fuselage which are secured by means of single locking. Design reassessment revealed that, in case of failure of a single attachment point, the stiffness of the hydraulic plate installation may be insufficient to withstand the in-service loads.

This condition, if not detected and corrected, may lead to loss of the hydraulic module plate, possibly resulting in loss of control of the helicopter.

To initially address this unsafe condition, Airbus Helicopters (AH) issued Alert Service Bulletin (ASB) MBB-BK117 C-2-29A-003 and ASB MBB-BK117 D-2-29A-001 to provide inspection instructions, and EASA issued AD 2015-0210 (later revised) requiring repetitive inspections for all helicopters.



After that AD was issued, AH designed production modification (mod) 4328 (for MBB-BK117 C-2 and C-2e) and mod 4119 (for MBB-BK117 D-2 and D-2m) that introduce an improved hydraulic module plate installation (with single locking securing parts replaced by double locking ones), and revised ASB MBB-BK117 C-2-29A-003 and ASB MBB-BK117 D-2-29A-001, reducing the applicability. Accordingly EASA issued AD 2015-0210R2.

Since EASA AD 2015-0210R2 was issued, AH revised ASB MBB-BK117 C-2-29A-003 and MBB-BK117 D-2-29A-001 (now at Revision 2), to provide modification instructions for pre-mod helicopters.

For the reasons described above, this AD retains the requirements of EASA AD 2015-0210R2, which is superseded, and requires modification of all pre-mod helicopters; this AD also requires modification of helicopters, manufactured as post-mod, on which pre-mod securing parts may inadvertently have been installed in service.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Restatement of requirements of EASA AD 2015-0210R2:

Torque Check / Repetitive Inspections:

- (1) For Group 1 helicopters (see Note 3 of this AD): Within 100 flight hours (FH) after 29 October 2015 [the effective date of the original issue of EASA AD 2015-0210], visually inspect the attachment points of the module plate assembly and accomplish a torque check in accordance with the instructions of paragraph 3.B.1 and 3.B.2 of the applicable ASB (see Note 1 of this AD), and, thereafter, at intervals not exceeding 400 FH (see Note 5 of this AD), visually inspect the attachment points of the module plate assembly, in accordance with the instructions of paragraph 3.B.1 of the applicable ASB.

Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any defective hardware is found, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of section 3.B.1 and 3.B.2 of the applicable ASB (see Note 1 of this AD).

New requirements of this AD:

Modification:

- (3) For Group 1 helicopters (see Note 3 of this AD): Within 12 months after the effective date of this AD, modify the hydraulic module plate installation in accordance with the instructions of section 3.B.3 of the applicable ASB at Revision 2 (see Note 1 of this AD).

Terminating Action:

- (4) Accomplishment of corrective action(s) on a helicopter as required by paragraph (2) of this AD does not constitute terminating action for the repetitive inspections required by paragraph (1) of this AD for that helicopter.
- (5) Modification of a helicopter as required by paragraph (3) of this AD constitutes terminating action for the repetitive inspections required by paragraph (1) of this AD for that helicopter.



Part(s) Installation:

(6) Do not install on any helicopter an affected part (see Note 2 of this AD) to secure an attachment point of the hydraulic module plate assembly, as required by paragraph (6.1) or (6.2) of this AD, as applicable (see Note 3 of this AD):

(6.1) For a Group 1 helicopter: After modification of that helicopter as required by paragraph (3) of this AD.

(6.2) For a Group 2 helicopter: From the effective date of this AD.

Notes:

Note 1: AH ASB MBB-BK117 C-2-29A-003 and MBB-BK117 D-2-29A-001 are collectively referred to as “the applicable ASB” in this AD.

Note 2: The parts specified in Table 1 of this AD are referred to as “affected parts” in this AD.

Table 1 – Single locking securing parts

Item	Part Number
Bolt	LN29522S08019
Bolt	LN29522S08014
Castellated nut	LN9345-08

Note 3: For the purpose of this AD, Group 1 helicopters are those that have any attachment point of the hydraulic module plate assembly secured by means of affected parts (see Note 2 of this AD). Group 2 helicopters are those that do not have any attachment point of the hydraulic module plate assembly secured by means of affected parts.

Note 4: MBB-BK117 C-2 or MBB-BK117 C-2e helicopters, having s/n 9751 and up, were manufactured as post-mod 4328. MBB-BK117 D-2 or MBB-BK117 D-2m helicopters, having s/n 20111 and up, were manufactured as post-mod 4119.

Note 5: A non-cumulative tolerance of 40 FH may be applied to the 400 FH inspection interval specified in paragraph (1) of this AD to allow synchronization of each inspection with other maintenance tasks for which a non-cumulative tolerance is already granted in the applicable Maintenance Manual.

Ref. Publications:

Airbus Helicopters ASB MBB-BK117 C-2-29A-003 original issue dated 12 October 2015, or Revision 1 dated 14 October 2016, or Revision 2 dated 01 February 2017.

Airbus Helicopters ASB MBB-BK117 D-2-29A-001 original issue dated 12 October 2015, or Revision 1 dated 14 October 2016, or Revision 2 dated 01 February 2017.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.



Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 08 February 2017 as PAD 17-020 for consultation until 08 March 2017. The Comment Response Document can be found at <http://ad.easa.europa.eu>.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters Deutschland GmbH,
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